IN THE CLAIMS

1. (Currently Amended) A method for stabilizing spectral shift in a multi-layered dielectric reflectivity coating located on a substrate after formation of the dielectric reflectivity coating on the substrate, comprising:

exposing the multi-layered dielectric reflectivity coating to a pretreatment of a sufficient amount of deep ultraviolet (DUV) laser radiation that is less than or equal to 300 nanometers in wavelength to induce sufficient compaction or densification by removal of water vapor in enough of the multi-layered dielectric reflectivity coating to inhibit subsequent compaction or densification during continued exposure to DUV or shorter wavelength radiation,

wherein the pretreatment is prior to the use of the multi-layered dielectric reflectivity coated substrate in an optical system, where one or more applications that expose the coating to high DUV optical fluence, produced by a high powered laser DUV light source of 300 nanometers in wavelength or less, occur.

2. (Previously Presented) The method of claim 1 further comprising:

the pretreatment laser radiation exposure amounts to energy of at least the equivalent of about 2 billion pulses of DUV radiation from a laser at 9 milliJoules per pulse.

3. (Previously Presented) The method of claim 2 further comprising:

the pretreatment laser radiation exposure amounts to the energy being delivered at about a 3KHz pulse repetition rate.

4. (Previously Presented) The method of claim 1 further comprising:

the pretreatment laser radiation exposure amounts to energy of at least the equivalent of 15-18 milliJoules per pulse of laser radiation delivered over about 700 million pulses to 1 billion pulses.

5. (Previously Presented) The method of claim 1 further comprising:

determining the amount of DUV laser radiation based upon a specified reduction in hygroscopicity of one or more layers of the multi-layered dielectric reflectivity coating, wherein a least one of the layers is hygroscopic.

6. (Previously Presented) The method of claim 1 further comprising:

determining the amount of DUV laser radiation based upon a specified reduction in compaction of one or more layers of the multi-layered dielectric reflectivity coating.

7. (Previously Presented) The method of claim 1 further comprising:

determining the amount of DUV laser radiation based upon a specified reduction in hygroscopicity and compaction of one or more layers of the multi-layered dielectric reflectivity coating, wherein a least one of the layers is hygroscopic.

8. (New) The method of claim 1 further comprising:

the DUV light source of 300 nanometers in wavelength or less comprises an ArF excimer laser light source.

9. (New) The method of claim 2 further comprising:

the DUV light source of 300 nanometers in wavelength or less comprises an ArF excimer laser light source.

10. (New) The method of claim 5 further comprising:

the DUV light source of 300 nanometers in wavelength or less comprises an ArF excimer laser light source.

11. (New) The method of claim 5 further comprising:

the DUV light source of 300 nanometers in wavelength or less comprises an ArF excimer laser light source.

12. (New) The method of claim 7 further comprising:

the DUV light source of 300 nanometers in wavelength or less comprises an ArF excimer laser light source.